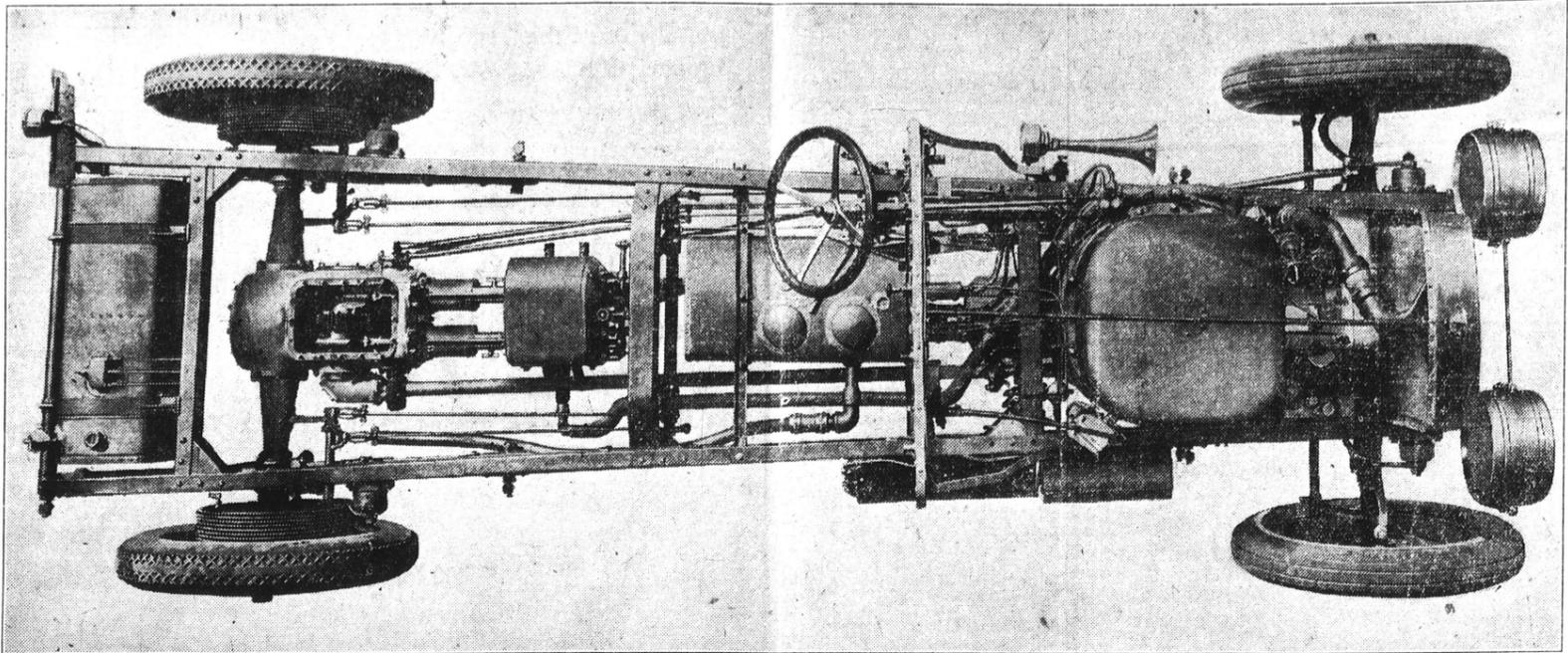


# Doble Steam Motors Corporation



HEREIN follows a descriptive account of the Doble Steam Car, what it is and how it was received. Study it carefully and appreciate its tremendous significance.

The Perfect Automobile—an engineering vision for twenty years, is today a reality.

The vision of a car so powerful that it is limited only by its ability to get traction, so silent that it is noiseless, so flexible that it leaps from one to sixty miles an hour in a few seconds, so durable that it will last a lifetime, is no longer a vision.

The Doble Steam Motor Car stands today as the complete fulfillment of that motor car ideal.

Through the exclusive electrical control features covered by the Doble patents, the car generates steam in a few seconds from "cold," by simply turning a switch. An advance of the throttle and the car glides into motion as easily and silently as a bird.

In the Doble Steam Car there is no self-starter to bother with, no gears to shift, no clutch to slip, no carbon to remove, no valves to grind, no oil pump to fail, no racing of motor, no scale to remove, no pilot light, no frequent stops for water.

PERFORMANCE—Without adjustments the Doble Steam Car can use any grade of fuel. Gasoline, kerosene or distillate are equally efficient and in economy the Doble excels any comparable car.

A pint of oil in five hundred miles is the consumption of the Doble Steam Car.

From a standstill to eighty miles an hour at a touch of the throttle is the speed range of the Doble car.

The tire mileage is greatly increased on account of the easy gradations of speed.

GUARANTEE—In the entire Doble Motor there are but thirty-six moving parts, as compared with the hundreds of the gas car. At sixty miles an hour this motor is turning at but 900 revolutions, as compared with 3000 to 3500 in the modern internal combustion automobile. So great is this advantage that the Doble Steam Car carries an unqualified three years' guarantee under any conditions of service, while the power plant is guaranteed for a hundred thousand miles—TWICE THE LIFE OF THE ORDINARY AUTOMOBILE.

The Doble Steam Car of today is vastly improved and perfected over the car that created such a sensation in the auto world in 1916 and 1917. The demand for the cars is again gaining the same tremendous proportions that it had five years ago. With only a comparatively small amount of advertising in connection with the sale of stock and with no advertising offering cars, inquiries have been received from all over America. THE CLAMOR FOR DOBLE CARS IS ALREADY WIDESPREAD, INSISTENT AND OF GREAT VOLUME.

THE INVESTMENT IN STOCK OF THE DOBLE STEAM MOTORS CORPORATION IS DACKED BY A HIGH GRADE PRODUCT THAT IS IN GREATER DEMAND THAN ANY AUTOMOBILE EVER OFFERED TO THE AMERICAN PUBLIC.

The Doble Steam Car is supreme in its field. Doble stock is unparalleled as a profit-making investment opportunity.

## CONSTRUCTION NOTES

### Engine

Cross-compound, double-acting. Cylinders cast en-bloc. Engine integral with rear axle. VALVES—Piston type, balanced; low-pressure valve fitted with rings. VALVE MOTION—Gives change of cut-off and reverse.

### Combustion System

Forced draft atomizing type, electrically ignited, using either kerosene, distillate, or any refined fuel oil of 32 gravity without adjustment.

### Steam Generator

Single tube, 480 feet long, in coil, forced-circulation, water-tube type.

### Water Tank

Capacity, 15 gallons. With driving range of 500 to 3000 miles, depending on mountain or level roads; tank filled through radiator cap.

### Water Feed

Four crank-driven plunger-pumps, positive feed, of ample capacity.

### Radiator

Standard type, functioning as a condenser.

### Fuel Tank

Special design, mounted at rear of chassis. Capacity, 25 gallons.

### Front Axle

I-beam center. Steering knuckles submerged in oil. Weight of car carried on ball thrust bearings on king pins. Wheels equipped with annular ball-bearings.

### Rear Axle

Integral with Engine. Hollow chrome-nickel steel axle-shafts, running in annular self-aligning ball bearings. Drive-gear ground by the Maag process. Differential fitted with hardened thrust-plates for all pinions.

### Brakes

Double expanding. Drum diameter 16 inches, width 4 1/2 inches. Cooled by flanges on outside of drum, and by air circulation past brake shoes.

### Frame

Special depth and extra heavy cross members. Chrome-nickel steel, heat-treated.

### Wheel Base

De Luxe Model, 135 inches; standard 56-inch tread.

## STEAM GENERATOR AND COMBUSTION CHAMBER

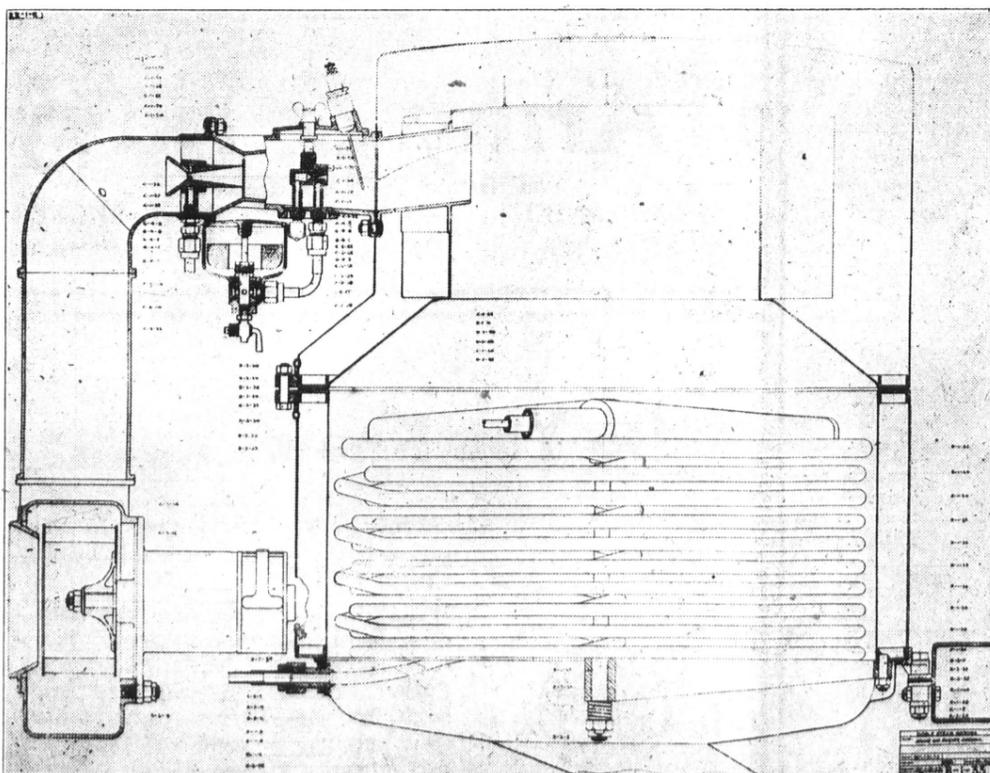
The Doble Steam Car uses a flash type generator consisting of one continuous tube 476 feet long of Shelby Steel tubing, one-half inch outside diameter at the bottom of the coil and 13-16 inch outside diameter at the top of the coil, with an inside diameter at the top of the coil of approximately 1/2 inch. There are no screw joints in this coil, as all joints are acetylene welded. The fire is on top of the coil instead of underneath, as has been the customary practice in steam motor cars. Water is pumped into this tube at the bottom and the steam is drawn off at the top.

As the steam generator is one continuous tube, every particle of water and steam must necessarily pass through every part of the generator. This causes an intense circulation which absolutely prevents any sediment or scale forming on the inside of the tube. The water enters the bottom of this tube at the rate of 29 feet per second and the steam is drawn off at the top of the tube at a velocity of approximately 600 feet a second. There is less than two quarts of water in the tube at any one time.

The Combustion Chamber is on TOP of the tubes instead of underneath. The fire is blown in thru the double Venturi tubes, and when measured in a laboratory shows a flame 23 feet long. This flame hits a splitter located in the center of the combustion chamber, causing the flame to divide and to start back toward the intake, resulting in a whirlpool motion of the flame. The flame never comes in contact with the tube, thus eliminating all chance of burning up the tube. By locating the fire on top instead of underneath it is only necessary to convert the water in the top tube into steam in order to drive the car. This practice also brings the warmest part of the gases in direct contact with the warmest part of the steam zone. As the hot gases pass down between the coils they gradually cool, as the heat is being absorbed by the water. The last portion of the generator with which the gases come in contact contain the cold incoming water. This gives us the remarkable efficiency for which the Doble Steam Generator is noted.

It is absolutely impossible to damage our steam generating system in any way, as the fire is positively cut off when the pressure reaches a predetermined point, usually set at 750 pounds to the square inch. The tubes are tested to 10,000 pounds per square inch, cold water pressure. An inspected and tested safety valve is set at 1200 pounds as an added protection. The fire is automatically cut off by temperature, as well as pressure, so in case the boiler was completely dry it would be impossible to damage the coil as the fire would automatically be cut off by temperature.

The principle of having the fire on top instead of the bottom overcomes all the troubles that steam engineers have experienced with boilers heretofore, namely, boiler priming and scale.



## L. C. KELLEY, REPRESENTATIVE

HEADQUARTERS FOR TORRANCE, IN THE AMERICAN LEGION HALL

SECURITIES MAY BE PURCHASED AT THE OFFICE OF JAMES W. JONES, IN THE AUDITORIUM BUILDING, TORRANCE